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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,415	12/22/2000	Michio Yanagi	35.C14997	8025

5514 7590 10/19/2004

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EXAMINER

SHAFFER, RICKY D

ART UNIT PAPER NUMBER

2872

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,415

Applicant(s)

YANAGI ET AL.

Examiner

Ricky D. Shafer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a): In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-15 and 17-31 is/are pending in the application.
- 4a) Of the above claim(s) 6-9, 11-15 and 17-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

Newly submitted claims 6-9, 14 and 27-31 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Newly submitted claims 27, 29 and 30 are not readable on the elected invention because the newly submitted claims fail to include the specific details of a protective layer. Furthermore, the newly submitted claims 27, 29 and 30 adds various aspects of the vacuum deposition process by specifically reciting the separate details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa. Moreover, newly submitted claim 29 is directed to invention II and claim 30 is directed to invention III (see the communication mailed on February 21, 2003).

Newly submitted claims 6-9, 14, 28 and 31 are not readable on the elected invention because the newly submitted claims fail to include the specific details of the protective layer having a double layer including a layer of aluminum oxide and a layer of silicon dioxide and specific thicknesses thereof. Furthermore, the newly submitted claims 6-9, 14, 28 and 31 adds various aspects of the vacuum deposition process by specifically reciting the separate details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa. Moreover, newly submitted claims 6-9, 14, 28 and 31 are directed to invention IV in view of the fact of the various aspects of the vacuum deposition process by specifically reciting the separate details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa, as recited in original claims 16 and 18, which would require a search in class 427, subclass 162 (see the communication mailed on February 21, 2003).

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The newly submitted (claim 27, 29, 30) and elected inventions are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa, as clearly evidenced by original claim 2. The subcombination has separate utility such as a metallic mirror without a protective layer.

The newly submitted (claim 28) and elected inventions are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa, as clearly evidenced by original claim 6. The subcombination has separate utility such as a metallic mirror without the protective layer including an aluminum oxide layer.

The newly submitted (claims 6-9, 14 and 31) and elected inventions are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other

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combinations (MPEP 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the details of adding oxygen gas under a pressure from 6.65×10^{-3} Pa to 26.6×10^{-3} Pa, as clearly evidenced by original claim 10. The subcombination has separate utility such as a metallic rotary polygonal mirror without the protective layer having a double layer including a layer of aluminum oxide and a layer of silicon dioxide and specific thicknesses thereof.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 6-9, 14 and 27-31 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. This application is in condition for allowance except for the presence of claims 6-9, 11-15 and 17-31 drawn to a non-elected invention in the reply filed on July 30, 2004. Applicant is given ONE MONTH or THIRTY DAYS from the date of this letter, whichever is longer, to cancel the noted claims or take other appropriate action (37 CFR 1.144). Failure to take action during this period will be treated as authorization to cancel the noted claims by Examiner's Amendment and pass the case to issue. Extensions of time under 37 CFR 1.136(a) will not be permitted since this application will be passed to issue.

The prosecution of this case is closed except for consideration of the above matter.

3. Claim 10 is allowable over the prior art of record.

4. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

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5. A shortened statutory period for reply to this action is set to expire **ONE MONTH** from the mailing date of this letter.

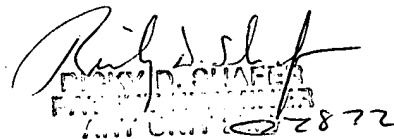
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky D. Shafer whose telephone number is (571) 272-2320.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDS

October 17, 2004

A handwritten signature in cursive script, appearing to read "Ricky D. Shafer", is written over a rectangular stamp. The stamp contains the text "RICKY D. SHAFER" and "2872" in a bold, sans-serif font.